

BUNDESAMT FÜR SEESCHIFFFAHRT UND HYDROGRAPHIE

# Eisbericht Nr. 9 Amtsblatt des BSH

Jahrgang 97

Nr. 9

Monday, 27.11.2023

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#### Übersicht

In der nördlichen Bottenwiek befindet sich den Schären bis 30 cm dickes Festeis oder ebenes Eis; weiter außerhalb treibt bis zu 15cm dickes lockeres bis sehr lockeres Eis, örtlich auch ebenes Eis. Weiter im Süden kommt, bis in die Boddensee hinein, an den Küsten Neueis vor. Auch in einigen geschützten Stellen des Schärenmeers, im Rigaischen Meerbusen und Finnischen Meerbusen kommt Neueis vor.

#### Overview

In the northern Bay of Bothnia there is up to 30 cm thick fast ice or level ice in the archipelagos and up to 15cm thick level and very open to open ice further out. Further south there is new ice in places along the coast down to the sea of Bothnia. New ice is present also in sheltered places in the Archipelago Sea, the Gulf of Riga and the Gulf of Finland.

#### **Bay of Bothnia**

In the archipelagos of the northern Bay of Bothnia there is up to 30 cm thick fast ice or level ice. Further out there is a mix of thin level ice and up to 15cm thick very open to open ice extending to Nygrån Rödkallen, Malören, Kemi-1 and to east of Nahkiainen. Further south there is thin level and new ice along the coast and ice formation in places

#### The Quark

New ice and thin level ice is present in bays along the coasts and in the Vaasa archipelago. Farther out ice formation in places.

#### Sea of Bothnia

New ice can be found in bays along the whole Finnish coast as well as along the northwestern coast. At places there is new ice formation further out. On the Ångermanälven there is 3–10 cm thick level ice on the upper part and new is present in farther out.

Although air temperatures are expected to increase, a least light frost is expected. Therefore ice formation will continue and due to the expected stronger northeasterly wind the ice will drift southwestwards.

With first strong to moderate frost but only light frost towards Tuesday, further new ice formation will occur with an expected southwesterly ice drift.

the lower part.

Temperatures will increase towards light frost everywhere, so further ice formation is expected at the coast.

Herstellung und Vertrieb Bundesamt für Seeschifffahrt und Hydrographie (BSH) www.bsh.de/eis www.bsh.de/ice

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#### Northern Baltic

In Lake Mälaren new ice is present in in the western part.

#### Archipelago Sea

In some sheltered bays there is new ice. With near coast temperatures below freezing some

#### **Gulf of Finland**

Thin ice, new ice and ice formation in Lake Saimaa. New ice is present in the top of Vyborg Bay and from Kotlin to St. Peterburg.

#### **Gulf of Riga**

Some new ice is present in bays in Väinameri and the Bay of Pärnu.

Dr. J.Holfort

With light frost expected, some new ice formation is anticipated.

ice formation is expected there.

With near coast temperatures below freezing some ice formation is expected.

With near coast temperatures below freezing some ice formation is expected.

#### **Restrictions to Navigation**

	Harbour/District	At least dwt/hp/kW	Ice Class	Begin
Finland	Tornio, Kemi and Oulu	2000 dwt	II	22.11.
Sweden	Karlsborg, Lulea and Haraholmen Karlsborg and Lulea Skelleftehamn Angermanälven Köping	2000 dwt 2000 dwt 2000 dwt 1300/2000 dwt 1300/2000 dwt	      C/     C/	21.11. 02.12. 02.12. 29.11. 02.12.

#### Finland/Sweden

Vessels bound for Gulf of Bothnia ports in which assistance restrictions apply, shall when passing latitude 60° 00' N report their nationality, name, destination, ETA and speed to ICE INFO on VHF channel 82. This report can also be given directly by telephone to +46 10 492 7600.

Vessels bound for Finnish or Swedish ports with assistance restrictions in the Quark or the Bay of Bothnia shall, 20 nautical miles before Nordvalen Lighthouse (63° 32.15' N 20° 46.60' E), report in accordance with the instructions for winter navigation to Bothnia VTS on VHF channel 67.

Icebreakers: KONTIO assists in the Bay of Bothnia.

### Baltic Sea Ice Code

<ul> <li>AB Amount and arrangements of sea ice</li> <li>0 Ice free</li> <li>1 Open water - concentration less than 1/10</li> <li>2 Very open ice - concentration 1/10 to 3/10</li> <li>3 Open ice - concentration 4/10 to 6/10</li> <li>4 Close ice - concentration 7/10 to 8/10</li> <li>5 Very close ice - concentration 9/10 to 9+/10</li> <li>6 Compact ice, including consolidated ice - concentration 10/10</li> <li>7 Fast ice with drift ice outside</li> <li>8 Fast ice</li> <li>9 Lead in very close or compact drift ice or along the fast Ice edge</li> <li>/ Unable to report</li> <li>Third number:</li> <li>TB Topography or form of ice</li> <li>0 Pancake ice, ice cakes, brash ice - less than 20 m</li> </ul>	<ul> <li>SB Stage of ice development</li> <li>New ice or dark nilas (less than 5 cm thick)</li> <li>Light nilas (5 - 10 cm thick) or ice rind</li> <li>Grey ice (10 - 15 cm thick)</li> <li>Grey-white ice (15 - 30 cm thick)</li> <li>White ice, first stage (30 - 50 cm thick)</li> <li>White ice, second stage (50 - 70 cm thick)</li> <li>Medium first year ice (70 - 120 cm thick)</li> <li>Medium first year ice (70 - 120 cm thick)</li> <li>Ice predominantly thinner than 15 cm with some thicker ice</li> <li>Ice predominantly grey-white ice (15 - 30 cm) with some thicker ice</li> <li>Ice predominantly thicker than 30 cm with some thinner ice</li> <li>No information or unable to report</li> <li>Fourth number:</li> <li>KB Navigation conditions in ice</li> <li>Navigation unobscured</li> </ul>
across 1 Small ice floes – 20 to 100 m across 2 Medium ice floes – 100 to 500 m 3 Big ice foes – 500 to 2000 m across 4 Vast or giant ice floes – more than 2000 m across – or level ice 5 Rafted ice 6 Compact slush or shuga, or compacted brash ice 7 Hummocked or ridged ice 8 Thaw holes or many puddles on the ice 9 Rotten ice / No information or unable to report	<ol> <li>Navigation difficult or dangerous for wooden vessels without ice sheathing</li> <li>Navigation difficult for unstrengthened or low-powered vessels built of iron or steel. Navigation for wooden vessels even with ice sheathing not advisable</li> <li>Navigation without icebreaker assistance possible only for high-powered vessels of strong construction and suitable for navigation in ice</li> <li>Navigation proceeds in lead or broken ice-channel without the assistance of an icebreaker</li> <li>Icebreaker assistance can only be given to vessels suitable for navigation in ice and of special size</li> <li>Icebreaker assistance can only be given to vessels of special ice class and of special size</li> <li>Icebreaker assistance can only be given to vessels after after special permission</li> <li>Navigation temporarily closed</li> <li>Navigation has ceased</li> <li>Unknown</li> </ol>

## Rövttä – Etukari

Röyttä – Etukari	8745
Etukari – Ristinmatala	5145
Ajos – Ristinmatala	5145
Ristinmatala – Kemi 2	5145
Kemi 2 – Kemi 1	5145
Sea area SW of Kemi 1	3125
Kemi 2 – Ulkokrunni – Virpiniemi	5145
Oulu harbours – Kattilankalla	8745
Kattilankalla – Oulu 1	5145
Sea area SW of Oulu 1	5145
High Sea N of the latitude of Marjaniemi	3125
Raahe harbour – Heikinkari	4041
Heikinkari – Raahe lighthouse	4041
Raahe lighthouse – Nahkiainen	3021
Latitude Marjaniemi – Ulkokalla, Sea	3122
Rahja harbour – Välimatala	3011
Ykspihlaja – Repskär	3011
Vaskiluoto – Ensten	5041
Ensten – Vaasa lighthouse	2001
Inkoo a. Kantvik – sea area Porkkala	4041

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Karlsborg – Malören	8346
Luleå – Björnklack	8346
Björnklack – Farstugrunden	2226
E and SE of Farstugrunden	2226
Sandgrönn fairway	2226
Rödkallen – Norströmsgrund	2226
Haraholmen – Nygrån	8346
Skelleftehamn – Gåsören	2121
Sea area off Gåsören	2121
Örnsköldsvik – Hörnskaten	4041
Ångermanälven north Sandö Bridge	4041
Ångermanälven south Sandö Bridge	4041
Gävle – Eggegrund	4041